

ORPS Performance Analysis July 1, 2003 through June 30, 2004

Executive Summary of Analysis Results

There were eleven incidents analyzed for this performance period. Two were classified and reported under the Occurrence Reporting and Processing System. The other nine did not meet the criteria established for reporting to DOE. There was nothing to indicate trends or recurring issues. There was insufficient data to conduct a statistical analysis.

Background

The time period used for the analysis was July 1, 2003 through June 30, 2004. The events included in the analysis were as follows:

Date of Incident	Title of Incident	Brief Summary of Incident	Date of Final Reportability Review	Reportability Analysis Summary	Reportable? (Yes or No)			
					ORPS	Environ- mental Regulations	PAAA- NTS	Internal
10/16/2003	D0 Dumpster Issue	A small radioactive particle was found in a dumpster at D0 in a routine dumpster survey. The composition of the radionuclides was subsequently determined to be similar to that of the pulse magnet associated with the 2002 trailer contamination incident, when the activities were decay-corrected to that time. (See 3/31/2002) The material was in a vacuum cleaner bag in an vacuum cleaner that had been used at D0, CDF, and MW9. The highest activity measured in the small piece of material was 47 nCi of Co-57. Contamination surveys of the D0 office complex, where the vacuum cleaner had been used, found no further contamination. Since a mixture of radionuclides was present and all local sealed sources were properly accounted for as intact, it was concluded that this was a left-over from the referenced incident.	10/20/2003	This incident, by itself, does not meet the requirement for reportability under either ORPS or NTS.	No	No.	No	No
11/7/2003	Subcontractor Struck by Another Subcontractor's Truck	While walking to his vehicle on a construction site access road, the worker was struck from behind by a stakebed delivery truck that was being driven in reverse. The worker sustained a fractured shoulder and multiple scrapes and bruises.	11/10/2003	This incident is reportable under ORPS due to fractured shoulder	Yes	No	No	Yes
3/10/2004	Electrical Mishap at Fermilab S&DET Facility	A mechanical technician, while cleaning out the Lab B Bubble Chamber, cut through an energized 480-volt wire that he believed to be de-energized. The employee was not injured.	3/10/2004	This incident is reportable in ORPS as a near miss	Yes	No	No	Yes
4/14/2004	Hydraulic fluid spill	Hydraulic fluid leaked from a fork lift in front of TD Lab 1 on the hard stand.		Only a small amount was released onto a hard stand. Material was cleaned with oil dry and disposed of into dumpster.	No	No	No	Yes
4/16/2004	Unlabeled Radioactive materials	During a routine dumpster survey at Warehouse II, a 30" long water filter was found in a dumpster that read 3800 gross/1800 net counts per minute (dumpster probe bicon). While these readings place this filter exactly at Fermilab's threshold for considering it as radioactive. The activity was determined by analysis at the RAF to be accelerator-produced rather than naturally-occurring. The event was subsequently investigated. E. Marshall, FESS RSO, reported that no one in FESS Operations recalls ever seeing such a filter on equipment that they maintain. It was later confirmed by B. Fritz that this filter originated from Accelerator Division (R. Slazyk's group). AD ES&H discussed the importance of proper surveying with relevant personnel. AD management has been made aware of this event. Proper disposal as radioactive waste has been done.	5/1/2004	Since the item was barely radioactive, if at all, no pertinent requirements of 10 CFR 835 were violated. (Ref. 10 CFR 835 Appendix E thresholds). However, future events should be monitored to assure that a programmatic or repetitive issue is not present. No ORPS reporting criteria were violated. No measurable radiation exposures are believed to be attributable to this event.	No	No	No	No

Date of Incident	Title of Incident	Brief Summary of Incident	Date of Final Reportability Review	Reportability Analysis Summary	Reportable? (Yes or No)			
					ORPS	Environ- mental Regulations	PAAA- NTS	Internal
5/5/2004	Propane Release	FD units responded to site 50 MSB for an outside 1000-gallon propane tank leaking. Upon arrival a significant amount of propane was seen leaking out of the fill valve. There was no possible way for the FD to isolate the leak. The Duty mechanic was notified and responded. Upon his arrival, he was unable to stop the leak. Command requested T. Peterson (Cryogenics) to respond. AmeriGas was notified of the situation and had a service technician enroute with an ETA of one half hour. T. Peterson arrived on the scene and was unsuccessful at stopping the leak. At 1431 hours AmeriGas arrived on the scene and the technician was able to cap off the fill valve and stop the leak. FD units returned to quarters. The building manager estimates 100# of propane was released.	5/5/2004	RQ value for propane is 1000 pounds.	No	No	No	No
4/29/2004	Unlabeled Radioactive materials	A routine snoop was conducted at the New Muon Lab by PPD personnel. W. Smith reported that several gas piping parts were discovered to be Radioactive Class 1. These parts included stainless steel and brass valves, steel support stands, and various pipe fittings. The gross count rates were typically about 10,000 cpm with one item have a reading of 25,000 cpm as measured with a standard Bicon survey instrument. The technicians localing working in the area have no direct knowledge of where these items came from, but there is a belief that they originated from MI-12 by PPD personnel and were brought to New Muon within the last 6 months. The support stands have been returned for use inside the Tevatron and the other materials have been relabeled and moved to a posted area for reuse due to their significant value.	5/12/2004	At these low levels, it is unlikely that pertinent requirements of 10 CFR 835 with respect to posting and labeling were violated. However future events of this type should be monitored to assure tha a repetitive or programmitic issues is not present. No ORPS reporting criteria were violated. No measurable radiation exposures are believed to be attributable to this event.	No	No	No	No.
4/11/2004	Unlabeled Radioactive materials	A TD technician brought two class one high voltage feed throughs from a beam separator in NWA to IB4 approximately April 11 to IB4 to be leak tested with a subsequent decision to machine it. The feedthroughs were delivered to IB4 on 4/29/04. These items originated from AD-DQ. Neither the items nor the separator itself were labeled. On all items the net readings were about 7000 cpm above a 1000 cpm background (standard Bicon). Contrary to TD procedures, the items were machined without being surveyed. The lack of surveying was discovered at MC/QC subsequent to machining. The chips were collected by the TD RSO. The components will be reused.	5/13/2004	At these low levels, it is unlikely that pertinent requirements of 10 CFR 835 with respect to posting and labeling were violated. However future events of this type should be monitored to assure tha a repetitive or programmitic issues is not present. No measurable radiation exposures are believed to be attributable to this event.	No	No	No	No
5/10/2004	Transformer Oil Spill (non-PCB)	Fire Dept. response to NWA south end outside for a reported oil leak of unknown origin. A bystander stated he noticed oil leaking from a large electrical oil switch located between NWA and NS-4. The oil appeared to be leaking from a sight glass on the unit. Approximately one quart of oil was noticed on the concrete pad and adjacent soil. The area was isolated with barrier tape. The power was shut off to the unit and oil dry applied to the spilled oil. The scene was turned over to FES High Voltage personnel.	6/7/2004	The amount leaked does not trigger any reporting criteria	No	No	No	Yes

Date of Incident	Title of Incident	Event Summary	Date of Final Reportability Review	Reportability Analysis/Status	Reportable (Yes or No)	No	Yes	
6/26/2004	Blue Block Rigging Incident	Incident Summary: An operational test was performed with the electric forklift to be used to move material underground at MINOS. The test involved loading the forklift with a twenty thousand pound blue block and traversing back and forth from the shaft to the Absorber Hall. After the test, the blue block was set in the shaft for removal. Once the hooks were set, the block had to be adjusted to the middle of the shaft by a series of mini picks to prevent it from swinging. When the block was between ten and twenty feet below the top of the shaft, it was noticed that the block and rigging did not appear level. It was suspected the east hook of the rigging was not seated properly. By entering the roped off area, employee had unknowingly placed himself under the block hanging at the top of the shaft. Once the block was in the High Bay area, it was discovered that the lifting bar of the block was resting on the tip of the hook and the back of the hook was wedged against the block. The size of the hook and the configuration of the block lifting bar would make it impossible to move the block.		There was never any danger of the hook to slip out unless there was a hook failure.	ORPS	Environmental Regulations	PAAA-NTS	Internal
6/23/2004	Cam/Pendulum Counter-Weight Incident	While dismantling the pelletron counter-weight, the consultant hired to oversee the job forgot to install steel rods before releasing the cam brake lever. AS a result the counterweight started to slide and almost fell. The AD Task Manager used two slings to secure the cam/pendulum counter-weight to the counter-weight tower frame. The cam/pendulum counter-weight was subsequently lowered to the floor using the building crane.	6/28/2004	The case does not fall under the a "near-Miss" per ORPS. There was more than one barrier still in place that prevented any injury. There was no property damage.	No	No	No	Yes

Analysis

1. Identification of Repetitive Groupings/Elements to Determine Potential Recurring Problems.

There were three incidents (27%) concerning unlabeled radioactive material. These incidents individually were not PAAA-NTS or ORPS reportable. They involved material that was very low level. It is unlikely that pertinent requirements of 10 CFR 835 with respect to posting and labeling were violated. No measurable radiation exposures were believed to be attributable to any of these events. Future events will be monitored to assure that a programmatic or repetitive issue is not present. Additionally, a 10 CFR 835 triennial compliance assessment is currently ongoing. Any programmatic or repetitive issues will be reviewed during this review.

2. Elements with a large concentration when compared to all others.

The five non-ORPS incidents occurred within the Accelerator Division. Since this division accounts for 25% of the laboratory population, it is expected that a larger number of incidents, especially near-miss type incidents, would arise from this organization. Three of the incidents are discussed in #1 above. Other than that, there are no indications of a trend within the division. In addition, there were not enough incidents during this performance period to allow for any statistical analysis.

3. Elements with a large concentration when compared to all others that were analyses for recurring problems.

Other than what is discussed in #1 above, there were no grouping or elements that identified potential recurring problems. There were not enough incidents during this performance period to allow for any statistical analysis.

Conclusion

No recurring problems were noted. As a result, no new ORPS reports were generated as a result of this review.